

IN THE CLAIMS:

1. (Cancelled)
2. (Currently Amended) A method as defined in claim 31 wherein said aqueous solution comprises an aqueous buffer solution.
3. (Currently Amended) A method as defined in claim 31 wherein said aqueous solution comprises water.
4. (Currently Amended) A method as defined in claim 31 comprising passing said raw enzyme solution through a column containing an effective amount of said activated carbon.
5. (Currently Amended) A method as defined in claim 31 wherein said activated carbon is removed by a method selected from the group consisting of filtration and centrifugation.
6. (Currently Amended) A method as defined in claim 31 wherein said raw enzyme solution is diluted with water to provide a diluted raw enzyme solution.
7. (Currently Amended) A method as defined in claim 31 wherein said raw enzyme solution is diluted with an aqueous buffer solution to provide a buffered diluted raw enzyme solution.
8. (Cancelled)
9. (Cancelled)

10. (Cancelled)
11. (Currently Amended) A method as defined in claim 31 wherein said enzyme solution of enhanced activity has a spectrum selected from Far UV (CD) and UV visible spectra distinct from said raw enzyme solution.
12. (Original) A method as defined in claim 11 wherein said enzyme solution of enhanced activity shows a relative absorbance intensity lower than said raw enzyme solution, in the CD spectral range of 205-230nm.
13. (Original) A method as defined in claim 11 wherein said enzyme is alpha-amylase and said enzyme solution of enhanced activity has a Far UV (CD) spectrum minimum ellipticity shifted by at least 1nm, from the raw enzyme solution, in the range between 205-230 nm.
14. (Currently Amended) A method as defined in claim 31 wherein said enzyme solution of enhanced activity has a UV-visible spectrum maximum peak at least 30 nm lower than said raw enzyme solution.

Claims 15-30 (Canceled)

31. (Currently Amended) A method of enhancing the intrinsic enzymatic activity of a ~~group 3 hydrolase solution~~ an enzyme formed from fermentation comprising:
 - (a) diluting an enzyme solution comprising glucoamylase ~~at least one group 3 hydrolase~~ with an aqueous solution by a factor of at least three to provide a diluted enzyme solution;
 - (b) if the enzyme solution contains cells, filtering the diluted enzyme solution to remove the cells;

(c) treating the diluted enzyme solution with activated carbon at an effective raw enzyme weight to activated carbon weight ratio of not greater than 50:1 and for a sufficient period of time to effect said enhancement; and

(d) removing the activated carbon to provide an enzyme solution of enhanced activity.

32. (Previously Presented) The method according to claim 31, wherein the weight ratio of enzyme to activated carbon is not greater than 25:1.
33. (Previously Presented) The method according to claim 31, wherein the weight ratio of enzyme to activated carbon is not greater than 15:1.
34. (Currently Amended) The method according to claim 31, wherein the diluted enzyme solution exhibits at least the same level of enzyme activity per equal volume of the undiluted enzyme solution before dilution.
35. (Previously Presented) The method according to claim 31, wherein the activity of the enzyme solution is enhanced by at least 200%.
36. (Previously Presented) The method according to claim 31, wherein the enzyme solution is diluted with the aqueous solution by a factor of about 5:1 to 10:1 times.
37. (Canceled)
38. (Canceled)
39. (Previously Presented) The method according to claim 31, wherein the aqueous solution comprises an aqueous buffer.

40. (Previously Presented) The method according to claim 31, wherein the aqueous solution comprises water.
41. (Previously Presented) The method according to claim 31, wherein the aqueous solution is selected such that the resulting pH of the diluted enzyme solution maintains enzyme activity.
42. (Currently Amended) An enzyme solution having enhanced activity comprising ~~at least one group 3 hydrolase~~ made by a method comprising:
 - (a) diluting an enzyme solution comprising at least one ~~group 3 hydrolase of glucoamylase or amylase~~ with ~~at~~ an aqueous solution by a factor of at least three to provide a diluted enzyme solution;
 - (b) if the enzyme solution contains cells, filtering the diluted enzyme solution to remove the cells;
 - (c) treating the diluted enzyme solution with activated carbon at an effective raw enzyme weight to activated carbon weight ratio of not greater than 50:1 and for a sufficient period of time to effect said enhancement; and
 - (d) removing the activated carbon to provide an enzyme solution of enhanced activity.
43. (New) The enzyme solution according to claim 42, wherein the enzyme is amylase.
44. (New) The enzyme solution according to claim 42, wherein the enzyme is glucoamylase.
45. (New) The enzyme solution according to claim 42, wherein the activity of the enzyme solution has been enhanced by at least 200%.

46. (New) A method of enhancing the intrinsic enzymatic activity of an enzyme formed from fermentation comprising:
 - (a) diluting an enzyme solution comprising amylase with an aqueous solution by a factor of at least three to provide a diluted enzyme solution;
 - (b) if the enzyme solution contains cells, filtering the diluted enzyme solution to remove the cells;
 - (c) treating the diluted enzyme solution with activated carbon at an effective raw enzyme weight to activated carbon weight ratio of not greater than 50:1 and for a sufficient period of time to effect said enhancement; and
 - (d) removing the activated carbon to provide an enzyme solution of enhanced activity.
47. (New) A method as defined in claim 46 wherein said aqueous solution comprises an aqueous buffer solution.
48. (New) A method as defined in claim 46 wherein said aqueous solution comprises water.
49. (New) A method as defined in claim 46 comprising passing said raw enzyme solution through a column containing an effective amount of said activated carbon.
50. (New) A method as defined in claim 46 wherein said activated carbon is removed by a method selected from the group consisting of filtration and centrifugation.
51. (New) A method as defined in claim 46 wherein said raw enzyme solution is diluted with water to provide a diluted raw enzyme solution.

52. (New) A method as defined in claim 46 wherein said raw enzyme solution is diluted with an aqueous buffer solution to provide a buffered diluted raw enzyme solution.
53. (New) A method as claimed in claim 46 wherein said ratio is not greater than 15.
54. (New) A method as defined in claim 46 wherein said enzyme solution of enhanced activity has a spectrum selected from Far UV (CD) and UV visible spectra distinct from said raw enzyme solution.
55. (New) A method as defined in claim 54 wherein said enzyme solution of enhanced activity shows a relative absorbance intensity lower than said raw enzyme solution, in the CD spectral range of 205-230nm.
56. (New) A method as defined in claim 54 wherein said enzyme is alpha-amylase and said enzyme solution of enhanced activity has a Far UV (CD) spectrum minimum ellipticity shifted by at least 1nm, from the raw enzyme solution, in the range between 205-230 nm.
57. (New) A method as defined in claim 46 wherein said enzyme solution of enhanced activity has a UV-visible spectrum maximum peak at least 30 nm lower than said raw enzyme solution.
58. (New) A method as defined in claim 46 wherein said enzyme is alpha-amylase and said enzyme solution of enhanced activity has a maximum spectral absorption peak over the range 340 to 360 nm.

59. (New) The method according to claim 46, wherein the weight ratio of enzyme to activated carbon is not greater than 25:1.
60. (New) The method according to claim 46, wherein the weight ratio of enzyme to activated carbon is not greater than 15:1.
61. (New) The method according to claim 46, wherein the diluted enzyme solution exhibits at least the same level of enzyme activity per equal volume of the enzyme solution before dilution.
62. (New) The method according to claim 46, wherein the activity of the enzyme solution is enhanced by at least 200%.
63. (New) The method according to claim 46, wherein the enzyme solution is diluted with the aqueous solution by a factor of about 5:1 to 10:1 times.
64. (New) The method according to claim 46, wherein the aqueous solution comprises an aqueous buffer.
65. (New) The method according to claim 46, wherein the aqueous solution is selected such that the resulting pH of the diluted enzyme solution maintains enzyme activity.